MULTIMEDIA UNIVERSITY

STUDENT IDENTIFICATION NO

MULTIMEDIA UNIVERSITY

FINAL EXAMINATION

TRIMESTER 2, 2019/2020

BWP2024 – INTERNET AND WORLD WIDE WEB PROGRAMMING

(All sections / Groups)

9 MARCH 2020
2.30 p.m – 4.30 p.m
(2 Hours)

INSTRUCTIONS TO STUDENT

1. This question paper consists of 5 pages with 4 questions only.
2. Attempt **ALL** questions in Section A and Section B. The distribution of the marks for each question is given.
3. Please write all your answers in the Answer Booklet provided.

SECTION A: STRUCTURED QUESTIONS (40 MARKS)

QUESTION 1

(a) Client-side scripting enables the running of scripts, such as JavaScript on the client device, usually within a browser. Explain **THREE (3)** advantages of client-side scripts.

(6 marks)

(b) Define File Transfer Protocol (FTP). Provide **THREE (3)** important roles of the FTP on the Internet.

(4 marks)

(c) Identify and explain briefly any **FIVE (5)** Web 2.0 monetisation models.

(10 marks)

(Total: 20 marks)

QUESTION 2

(a) One of the subgroups of Structured Query Language (SQL) commands is Data Manipulation Language (DML). Define DML. Provide and explain briefly any **FOUR (4)** examples of DML SQL commands.

(10 marks)

(b) A Trojan horse is one of the most common and dangerous type of security threats that can infect computing devices. Discuss why are Trojan horses so prevalent and difficult to detect.

(4 marks)

(c) What is a firewall? Are firewalls needed in computer networks? Discuss.

(6 marks)

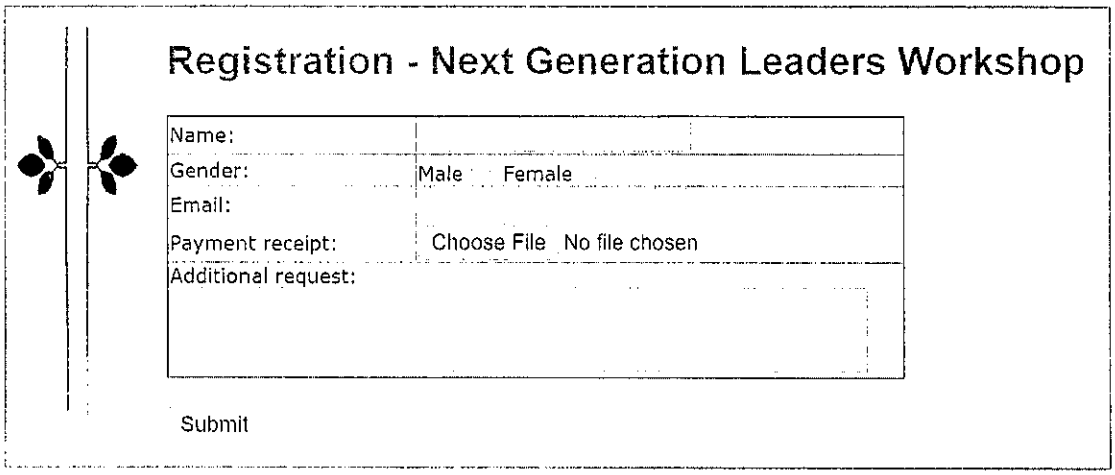
(Total: 20 marks)

Continued ...

SECTION B: PRACTICAL QUESTIONS (60 MARKS)

QUESTION 3

(a) Write the complete HTML and internal CSS codes to create the following web page.



The web page should incorporate the following requirements:

Add a submit button to the form, and specify that the form should go to "/action.php". For the table, set the border size to 1. In addition, apply the following CSS style properties:

Body
- Set background image using graphic *bg.png*
- For the background image, do not repeat and placed it at the left with a left margin of 100px

Header 2 [Registration – Next Generation Leaders Workshop]
- Set font family to *Arial*
- Set font color to *DarkSlateGrey*

Table
- Collapse the table border

Table data
- Set font family to *Verdana*
- Set font size to *12px*
- Using the *.class* selector:
  - Set the first row first column width to *150px*
  - Set the first row second column width to *300px*

(20 marks)

Continued ...

(b) Given below are two data relations in a relational database. The primary key in each table is highlighted (bold).

CUSTOMER (**CustID**, firstname, lastname, address, country, contactno)
ORDER (**OrderID**, date, productID, quantity, totalprice, CustID)

(i) Identify the type of relationship between CUSTOMER and ORDER.
(1 mark)

(ii) A customer named Ian Brianner has placed an order of 3 units for product P001 totalling RM120 on 12 December 2019. Ian's customer ID is C1001. Write the SQL statement to insert his order into the database. (Note: OrderID in the database are auto generated).
(3 marks)

(iii) Write the SQL statement to retrieve all Malaysian customer details.
(3 marks)

(iv) A report with customers' names and their order details (product ID, quantity, total price) is required by the company. Write the SQL statement to retrieve the details for the report.
(3 marks)

(Total: 30 marks)

QUESTION 4

(a) Given below is a JavaScript array declaration initialised to a series of decimals.

```
var final = [82.42, 58.91, 51.17, 52.58, 52.58, 60.41, 61.25, 72.17, 55.75, 65.17, 28.67, 71.58,
69.83, 82.00, 63.58, 73.33, 70.00, 50.42, 70.58, 57.33, 74.33, 68.17, 80.25, 86.59, 69.17,
61.58, 56.08, 58.75, 66.67, 50.08, 61.75, 80.42, 64.17, 65.59, 68.00];
```

Write the JavaScript codes to calculate and determine the average, lowest and highest score. Display the results as output.

Output screenshot

```
Lowest score: 28.67
Highest score: 86.59
Average score: 64.61
```

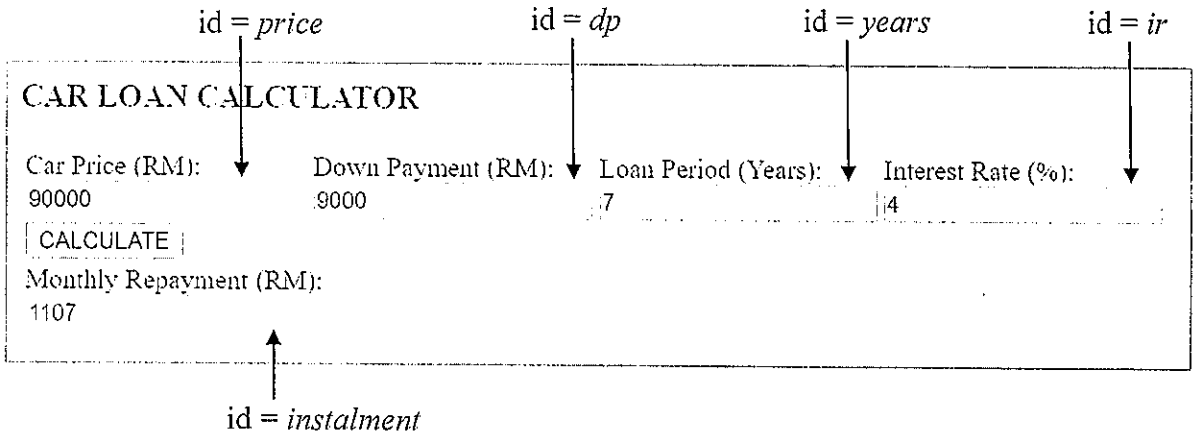
(10 marks)

Continued ...

(b) Given below is a HTML form. In this form, the user has to provide the car price, down payment, loan period, and interest rate as input.

When the CALCULATE button is clicked, the JavaScript function calc_monthlypayment() will be executed to calculate monthly repayment amount, and display the result as output.

Sample screenshot



Write the JavaScript codes to define function calc_monthlypayment():

- Retrieve all four inputs into appropriate variables
- Calculate the *loan amount* (car price minus down payment)
- Calculate *number of months* (loan period multiple 12)
- Calculate *monthly interest* (interest rate divide by 100, and divide further by 12)
- Calculate the *monthly repayment* amount by using the formula below:

$$\frac{loan\ amount \times (monthly\ interest \times (1 + monthly\ interest)^{number\ of\ months})}{(1 + monthly\ interest)^{number\ of\ months} - 1}$$

- Display the calculated monthly repayment as output on the form (refer to sample screenshot).

(13 marks)

Continued ...

(c) Given the code snippets below, write the codes for the following:

```
<script>

/* (ii) */

/* (iii) */

</script>

<body>
<p>Move your mouse over to enlarge picture</p>

/* (i) */

</body>
```

(i) Insert image *flower.jpg*. Set the image's width and height to 200px respectively. When the user mouse over the image, call function enlarge(...) and pass the image object as parameter. Also, when the user move the mouse away from the image, call function shrink(...) and pass the image object as parameter.

(3 marks)

(ii) Define function enlarge(...). Set the image width and height to 500px respectively.

(2 marks)

(iii) Define function shrink(...). Set the image width and height to 200px respectively.

(2 marks)

(Total: 30 marks)

End of Paper